<u>IN THE SPECIFICATION</u>:

Please replace paragraph [0002] with the following amended paragraph:

[0002] It has been conventional to perform optical measurements in order to detect a structure to be applied to a substrate, whereby often various systems for fully-automatic inspection of the structure, including adhesive and sealing agent extrusion lines, have been used. For this purpose, one or multiple video-cameras are trained on the structure to be detected. In addition, an illumination module is required whose purpose it is to generate a camera image that is rich in contrast. The inspection of the structure is performed in a delayed fashion, several seconds after application of the structure to the substrate. In many cases, the inspection is not performed until all of the structure is applied to the substrate. This is disadvantageous in that the inspection is performed separate and independent of the process of application, which may be tedious and difficult to handle in some of the cases. Hitherto, these systems were not stabile enough and [[to]] <u>too</u> tedious in their parameterization to allow direct inspection.

Please replace paragraph [0005] with the following amended paragraph:

[0005] A sensor unit is provided on the facility for the application of the structure. By this means, a visual inspection system with a compact design is provided, whereby the illumination module can preferably also be provided on the facility for the application of the structure. This facilitates the integration of the device according to the ~~present application~~<u>various embodiments</u> into existing systems whose task it is to apply a structure to a substrate. While the structure is applied to the substrate, if an error is present, it is feasible to directly act or interrupt during the manufacturing process and/or sort out the defective substrate. This provides for improved efficiency in the manufacture of structures on a substrate. If the method involves a tested area of the structure that is placed along the structure to be tested by means of support points, the handling becomes trouble-free since the interactive process

between the user and the displayed structure is implemented in a simple fashion with currently existing means. If, according to embodiments of the invention, the range of tolerance is set along the reference line defined by the support points, inaccuracies of the structure, if any, will be accounted for and, in particular, the quality inspection of the structure to be tested can be set individually by this means. This simplified operator interaction allows even complex track profiles of the structure to perform a teach-in process in a simple and efficient fashion. Moreover, the existing display visualizing the structure and the reference line generated by the support points indicates directly to the user whether or not deviations in the track profile of the structure are present.

Please delete paragraph [0006] on page 2:

~~[0006] Further advantageous embodiments are the subject matter of the dependent claims.~~

Please replace paragraph [0009] with the following amended paragraph:

[0009] If the method used involves that the structure is determined by means of so-called calipers (gray edge scanning), which preferably extend orthogonal to the structure on the substrate, this means can be used to define specific areas, preferably crossing areas, between the caliper line and a contrast structure in the area to be determined. If the calipers extend orthogonal to the structure on the substrate, this allows especially the width of the structure to be determined in a simple fashion. In conjunction with appropriate visualization software, the profile of the structure and the corresponding areas of error can be displayed. The user thus recognizes immediately whether or not the profile of the structure complies with the given range of tolerance or if the structure is being applied inaccurately. Another ~~advantage~~aspect is ~~provided by~~ making it feasible to base the structure determination and corresponding error analysis for example on the given substrate data, such as recesses and elevations, since this allows more exact statements concerning the profile of the structure to be made.

Please delete paragraph [0012] on page 4:

~~[0012] Further advantageous refinements are the subject matter of the remaining dependent claims.~~

Please delete paragraph [0013] on page 4:

~~[0013] In the following, advantageous refinements of the invention shall be illustrated on the basis of the following drawings.~~

Please replace paragraph [0014] with the following amended paragraph:

[0014] Figure 1 shows schematically an ~~advantageous~~ embodiment of the device according to the invention.

Please replace paragraph [0022] with the following amended paragraph:

[0022] Figure 1 shows a device 1 for the application of a structure 9, such as an adhesive extrusion line, to a substrate 7. The position of device 1 is adjustable in x, y, and z direction. Optionally, the device may be fixed in position and the substrate may be adjustable in x, y, and z direction. The device 1 further comprises a sensor unit 3 (e.g., a video sensor), which, in this embodiment, is positioned directly at the exit of the device 1 for the application of the structure. Also shown in this schematic drawing is the illumination module 5, which provides for the contrast during the application and/or registration of the areas to be monitored. It can be seen in this embodiment that a so-called adhesive extrusion line 9 is being applied to and/or introduced into a pre-made recess 13 in the substrate 7. Reference number 11 shows by ~~shaded~~dashed lines an area of the image shown in more detail in Figure 2.

Please replace paragraph [0025] with the following amended paragraph:

[0025] Figure 2 shows, for example, the recess 13 into which the structure and/or adhesive extrusion line 9 is introduced. This selected area can be processed in the analytical unit 6 in the sensor unit 3, or it can, as a matter of principle, be displayed to the user [[right]] during the application process such that the user can manually set [[his]] support points 20 on the basis of which [[a]] reference line 22 can be generated. As is clearly evident from Figure 2, a range of tolerance is defined with regard to the reference line 22, which approximately reflects the course of the structure, which range of tolerance in this case is equidistant to the reference line. Accordingly, it is being tested whether or not the reference line defined by the support points is within the range of tolerance. In addition to the range of tolerance, Figure 2 shows an inspection area 26, in which the structure is situated.

Please replace paragraph [0026] with the following amended paragraph:

[0026] Figure 3 shows an error display, for example, which does not only identify the position of the error in the application of the structure, but also indicates the magnitude of the error to the user based on the analytical accuracy of the method according to the invention. The user can then decide on the basis of the magnitude of the error whether or not the deviation from the set value is tolerable or if the manufacturing process needs to be terminated. Accordingly, the method allows ~~to make~~ a decision <u>to be made</u> on the basis of direct inspection of the application of the structure in the course of the manufacturing process, in a fully automatic fashion, as to whether or not the manufacturing process needs to be interrupted and/or if the defective substrate needs to be sorted out.

Please replace paragraph [0029] with the following amended paragraph:

[0029] Figure 6 shows that a set of hypotheses is generated for each caliper of Figures 4 and 5, whereby, for example, for four node points of a caliper a total of six position hypotheses [[are]] exist. Subsequently, the caliper hypotheses are gradually, preferably in a hierarchical fashion, linked to the corresponding neighbor and/or neighboring sets of hypotheses.

This linkage is performed in an iterative fashion, as shown in Figure 7. For this purpose, left and right hypotheses are generated progressively, which in turn are linked to each other and/or analyzed using a heuristic function. One selection criterion for defining the determination of structure can, for example, be 'the higher the value determined, the better is the underlying hypothesis'.

Please replace paragraph [0032] with the following amended paragraph:

[0032] Based on the actual implementation, according to which the device is used during the application of an adhesive extrusion line to a substrate, it is advantageous to comply with the following: according to an ~~advantageous~~ embodiment, the system and/or device according to <u>an embodiment of</u> the invention ~~consists essentially of~~<u>includes</u> a color line video-sensor with an integral analytical unit and illumination for imaging and illumination of the sealing agent and/or adhesive extrusion line. The components reside in a compact protective housing. The visual inspection system is attached directly downstream from the adhesive application system (application nozzle) and is trained on the area shortly downstream from the adhesive nozzle in order to perform a test directly after the application of the extrusion line. The test is therefore performed directly after the application of the sealing agent or adhesive allowing the quality of the extrusion line to be analyzed (for breaks, position and placement, thickness) while it is being applied.

Please replace paragraph [0038] with the following amended paragraph:

[0038] In order to simplify the user interaction, a GUI special-developed for the inspection of adhesive tracks [[was]] <u>may be</u> used. Simple mouse clicks can be used to enter complex track profiles in a simple and efficient fashion. The graphical elements are designed such that the set limit values, such as min / max ranges and range of tolerance are easy to see (Figure 2). Changes in the track of the profile can also be made with just a few mouse clicks. In this context, there is no need to enter the adhesive track exactly, since the downstream image

processing operations are sufficiently stabile to compensate for the inaccuracies generated during input of the information. An additional display provides the operator with information concerning any production errors. By clicking on an error with the mouse, the respective area is enlarged and the plain text description of the error is displayed (Figure 3).